

Study of the Market
For Rwandan French Beans
In Europe

By

Dr Peter Jaeger

On behalf of

ADAR Agribusiness Centre

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SUMMARY

1. Europe imports over 85,000 tonnes of green beans annually from non-European sources. The volume of supply increased significantly over the last three years.
2. The principal importers are France, the UK and the Netherlands. Imports to the UK have grown strongly throughout the 1990s. Imports to France have grown rapidly in the past two years.
3. Other importers include Belgium and, recently Italy and Spain. The southern European markets are unlikely to be interested in Rwandan produce and access would be difficult.
4. The requirements of the EU markets differ: France and Belgium take mostly fine and extra-fine beans; the Netherlands and Germany prefer bobby beans; the UK imports all three types.
5. Extra-EU imports derive mostly from Africa. The sources of supply depend on market requirements. Kenya has dominated the fine and extra-fine market, while Egypt has been the major exporter of bobby beans. More recently, supplies of fine beans from West Africa and Morocco have become important.
6. Bobby beans are too low value to consider exporting from Rwanda. The cost of airfreight will limit the opportunity to the premium grades with the emphasis on the extra fine bean market.
7. Competition, particularly with Kenya, will be intense, but the market continues to grow and there may be opportunities for suppliers able to match the quality in the November to April/May period. Initial entry to the market should be tested with the wholesalers and catering suppliers with a view to moving into the supermarket trade in the medium term.
8. Imports from Kenya have maintained a unit value in excess of \$2.70 / kg over the past five years.
9. In the longer term, Kenya and Rwanda may lose their tariff preference if ACP preferences on import duties are phased out.

I INTRODUCTION

This study has been prepared at the request of the ADAR Agribusiness Centre in Rwanda. It is one of a set of studies prepared to provide an understanding of the potential market in Europe for possible export crops. Each study is written as a separate document designed to provide an overview of the market, the opportunities and the potential trading partners. There should be enough information for a potential exporter to assess the viability of entering the market with guidance on the sustainability of the demand.

The studies are not comprehensive and exporters will need to initiate discussion with importers for more detailed information, but the relevant issues are raised here. It is essential that any exporter should make full enquiries regarding potential partners before entering into a commitment to trade. No recommendation to trade is intended with this study.

The markets covered by this study are the 15 members of the European Union and Switzerland. As a regional unit, the EU is the largest market in the world for imported fresh produce, with an import trade in excess of 6.5bn ECU. The notion of a single EU market may apply to the regulatory structure but the national and regional markets remain diverse and in demand and consumer behaviour.

Despite the attractions of size and diversity the EU market is becoming increasingly difficult for the fresh produce exporter:

- The food market is largely saturated and all products compete for a share. Exporters must look for competitive advantage wherever possible
- The distribution and retail arrangements have changed dramatically over the last 15 years with much greater linkage between the supplier and the consumer. Suppliers are expected to react rapidly to consumer tastes and demands.
- The entry barriers are higher with greater performance expectations from fewer more powerful buyers and trimmed margins that require high volume turnover for profit
- The regulatory environment has changed with a reduction in customs tariffs but an expansion in other regulatory issues of standards, labelling, pesticides, additives, packaging, hygiene and so on.

The scale and speed of change in the fresh produce distribution of northern Europe has been exceptional, and the supermarkets and hypermarkets now control 70% of the grocery retail trade. In the UK, supermarkets handle over 80% of fresh produce sales. It has been suggested that as the consolidation of the trade continues, by 2005 five large chains will control 40% of the EU market. The exporter must be able to supply into this system and be able to manage their demands. The exporter can no longer rely on placing product into wholesale markets on a consignment basis.

Retailers respond to key drivers in the food market and the range of products and the marketing reflect their perception of their customers concerns. Drivers such as:

- convenience - the rise of snacking with less emphasis on meal preparation
- safety – for example absence of pesticide residue
- health – perhaps in fresh produce or fruit juices
- novelty/ethnic – such as exotic fruits

- environmental issues – the rise of the organic sector
- ethical issues – the concept of fair trade
- all year round availability – customers buying product out of season.

Drivers such as these open up the opportunities to the responsive supplier.

While import volumes have been quite stable overall, individual items have made substantial progress, as has the value of the trade. In particular, items such as exotic fruits including mango and papaya have shown excellent growth rates, and in part this has increased the value of the trade. Other gains are seen in the value-added products such as the prepared vegetable and fruits, responding to the consumer search for convenience.

The rise of the organic sector is probably the best known development in the market, and in a time of price cutting the most surprising. Consumers have shown a willingness to pay a premium for food prepared under certified organic conditions. Growth rates in this sector have been impressive, but from an insignificant start. The current status of the organic sector varies between countries and between food sectors too and without detailed statistics it is difficult to assess the true scale. In general, however, organic sales account for less than 5% in most products and exporters aiming for niche markets such as passion fruit or physalis should keep this in perspective. A niche of a niche can easily be oversupplied. In the bean market, where volumes are substantially higher, there may be more of an opportunity. Note however that the fine and extra fine beans are not such high volume products and are still considered exotic products.

II MARKET OVERVIEW

Outline

Kidney beans (*Phaseolus vulgaris*) are among the most widely used of the legumes referred to as beans. They are marketed in fresh, frozen and canned form and have been bred into many different varieties. One group of cultivars, the pod, snap or green beans, are marketed for their edible immature pods and grow either as low bushes or as climbers. In Europe, these are the french beans and the runner beans respectively. The french beans are the subject of this report, and they have become the major air-freighted fresh vegetable into the EU.

The french beans are widely grown and can be cultivated in temperate, sub-tropical and tropical climates over a range of territory.

The trade distinguishes three types of French bean:

- Bobby beans are typically 8-12mm in diameter, 12-16cm long
- Fine beans are 6.5-9mm diameter, 10-13cm long
- Extra fine beans are 6-7.5mm diameter, 8-12cm long

In general, any type can be produced by any variety, but it is preferable to grow particular varieties that have been bred for a particular use. A very large range of varieties is now available.

Within Europe there are marked regional preferences for particular types of french bean: the French and Belgian markets demand the fine and extra-fine beans, while the Germans and the Dutch consume more bobby beans. The UK imports all three types, but fine and bobby beans predominate.

European production is limited, by labour cost, to bobby beans. While the import of bobby beans from outside the EU is therefore restricted to the off-season, there is an active market for imported fine and extra-fine types all year round.

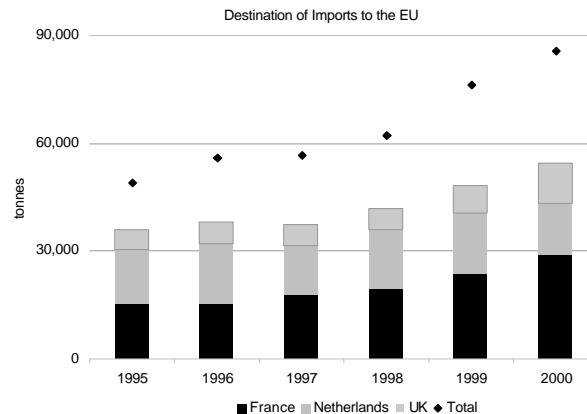
Supply and Demand

Commercial production in Europe is limited by the cost of harvesting. Climbing beans are produced in Europe, and Italy and Spain also produce some of the large grades of French beans, ie the bobby beans, during the summer months.

Trade statistics do not distinguish the different types of beans; all the fresh imported beans of species of *Phaseolus* and *Vigna* are grouped together under one code. Over 96% of imports arrive from Africa and most of these are either French or climbing beans.

Figure 1 shows the imports of fresh beans in the EU from non-EU sources. It does not include trade within the EU or re-exports since it is not possible to separate out locally produced beans from imported ones.

Figure 1 Bean Imports to the EU

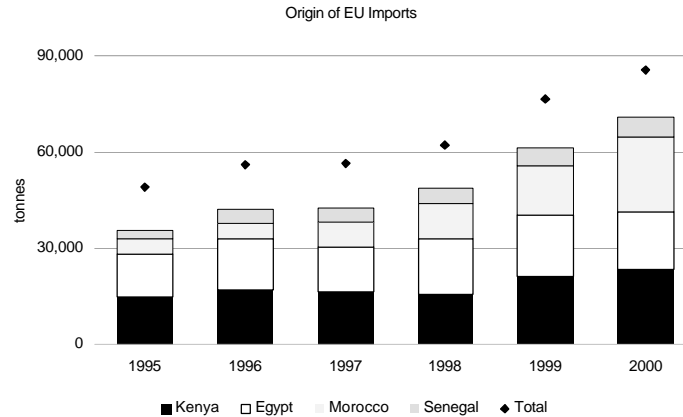


Source: EUROSTAT

- Figure 1 shows the rapid development of the EU market since the mid 1990s. Total EU imports of beans (all fresh beans from all non-EU origins) exceeded 85,000 tonnes by 2000.
- France is the largest importer with almost 18,000 tonnes entering France from non-EU origins during 2000. A large proportion of these imports derives from Morocco and may have been re-exported subsequently, but there is a strong demand in France particularly for the extra-fine grades.
- The UK is the second largest importer, with arrivals of 15,000 tonnes from outside the EU in 2000. The bobby beans and fine grades are more important in this market.
- Imports to the Netherlands have not grown as much as those to France or the UK. Imports to the Netherlands exceeded 13,000 tonnes in 2000, down from 17,000 tonnes in 1999. Much of this is redistributed in northern Europe.
- Other significant destinations include Belgium, importing 6,000 tonnes in 2000, and Spain and Italy, each importing 4,500 tonnes in 2000.
- Switzerland, not included in figure 1, imported 2,400 tonnes in 2000 of which 1,300 tonnes derived from the EU either directly or as re-exports.

Figure 2 overleaf shows the major origins of imported french beans. At least 20 sources supply the EU with fresh beans but three market leaders have emerged in this increasingly competitive market. Total EU imports of fresh beans from non-EU origins reached a value of \$146mn in 2000. Only a small fraction of this was not Phaseolus type beans, but it is not possible to differentiate between the runner beans and french beans.

Figure 2 Origin of EU Imports

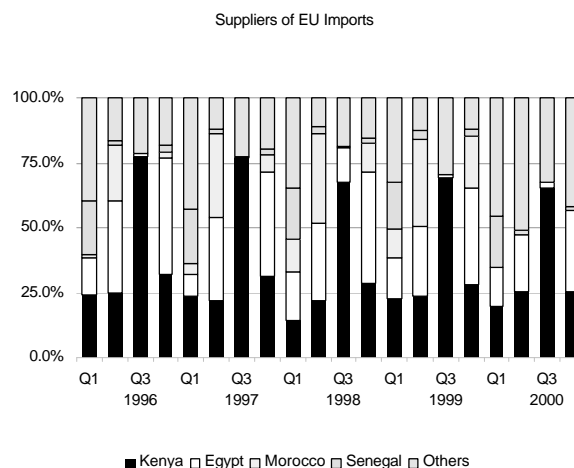


Source: EUROSTAT

- Three suppliers, Kenya, Egypt and Morocco, now provide 76% of the EU imports of beans.
- Kenyan and Moroccan exports lead the supplier with 23,500 tonnes imported to Europe from each origin in 2000.
- Kenyan supplies were valued at \$63mn in 2000 whereas Moroccan produce reached \$30mn indicating the difference in types of supplies. Surface freight routes are available to Moroccan growers and exporters who can specialise in lower value products. Kenyan export data indicate that only 3% of their green bean exports are of a bobby type.

Figure 3 below shows the percentage contribution of the major suppliers during the four quarters of the year.

Figure 3 Seasonality of EU Bean Imports

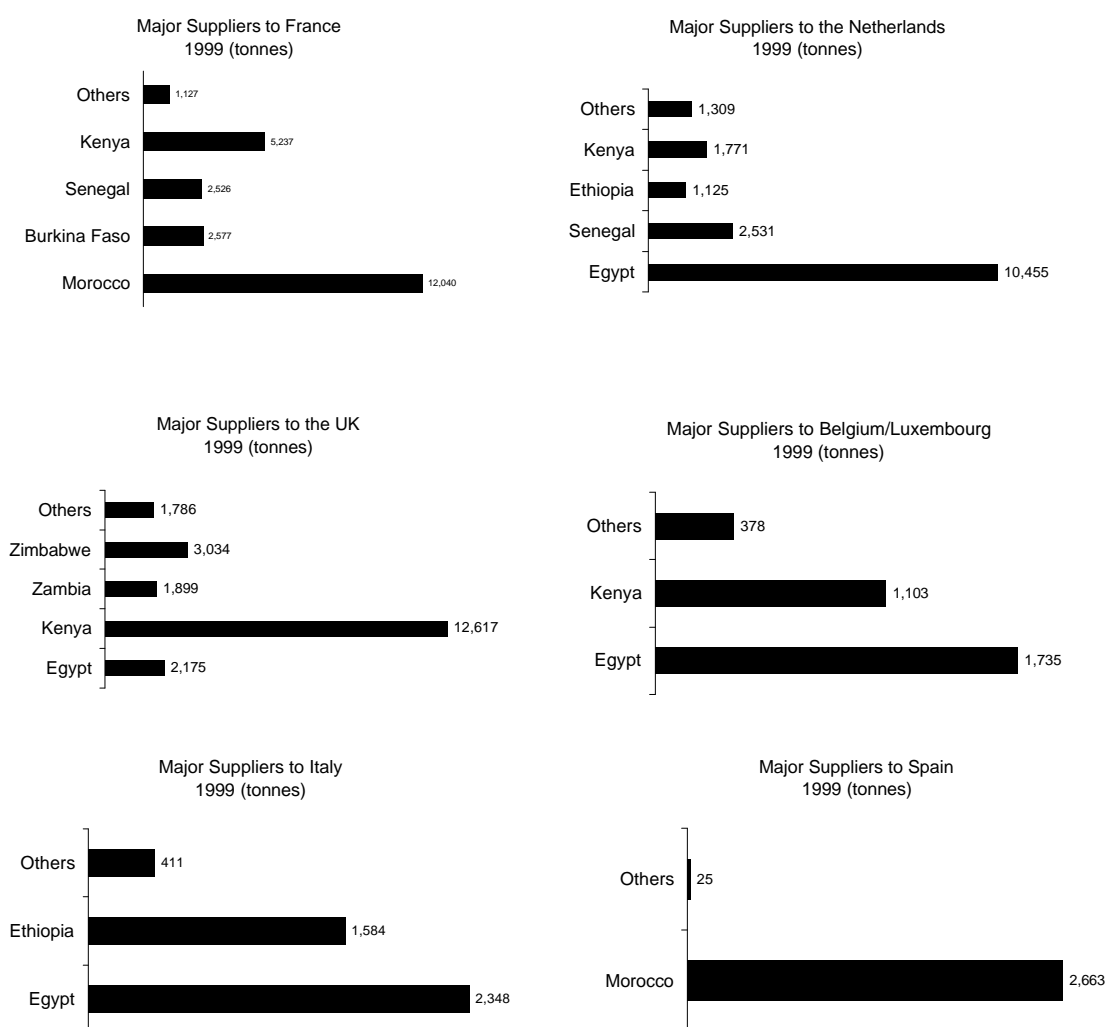


Source: EUROSTAT

- Total quarterly imports to the EU (not shown here) are relatively even, but there is a marked dip in quarter 3 (Jul-Sep). At this time Europe has plentiful supplies of its own vegetables and total imports from outside the EU fall dramatically.
- Quarters 1 and 2 are the most important time for imports.
- Kenya supplies beans to Europe throughout the year.
- Morocco supplies principally in q2 as an early start to the European supplies.

Figure 4 shows the suppliers to the major EU markets and indicates the marked differences in preferred origins depending on the types of beans required in the markets.

Figure 4 Suppliers of Fresh Beans to the Major EU Markets



Source: EUROSTAT

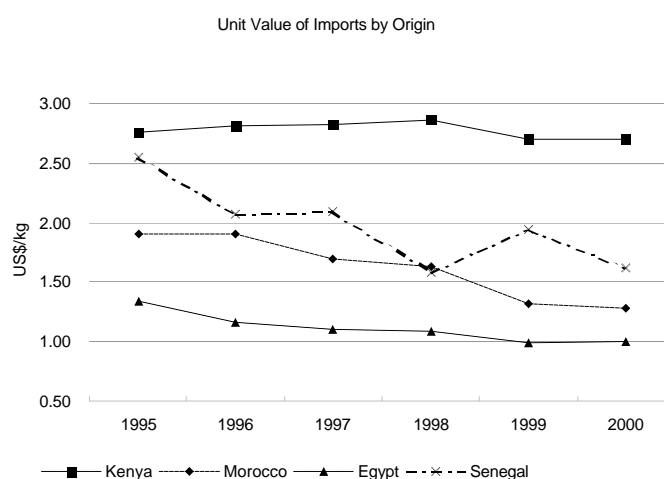
- The UK has become the major market for Kenyan bean exports. In the early 1990s France led the imports from Kenya, but in 1999 almost 60% of Kenya beans were dispatched to the UK.
- French imports are mostly derived from francophone origins whereas the anglophone origins supply the UK.
- Egypt has developed good markets in the Netherlands and Italy.

Prices

Wholesale market prices are recorded and published, for example by the International Trade Center (www.intracen.org), and these are useful for monitoring current activity. However, the wholesale market prices only provide a snapshot of activity on one day without recording the volume traded: a temporary shortage or surplus can have a significant impact on prices. Further, with the rise of the supermarkets the relevance of the wholesale markets has diminished, and less product is traded on consignment basis through the markets of northern Europe than between importers, distributors and retailers.

Figure 2 shows the unit import value for fresh beans over the past three years. These values are calculated from customs declarations of consignment weight and value. Clearly there are many potential errors but the data accord relatively well with trade data. Note that these are average values across the range of beans and there is no differentiation between types and grades of french, runner or pod beans.

Figure 5 Unit Import Value of Beans



Source: EUROSTAT

- The highest unit values are achieved by Kenyan produce. These are fine and extra-fine beans in which Kenya dominates the market. Kenyan produce maintains value by the strength of the marketing and by the quality and reliability of the produce. Import values here have been consistently above \$2.7/kg.
- Values from Senegal and Morocco fell significantly during the late 1990s.

- Values for Egyptian exports are low, as these are mostly the lower priced climbing beans.
- Unless Rwandan producers are able to match the Kenyan product and supply the import value will not cover the cost of airfreight.

Opportunities

The demand for French beans, particularly in the UK and France, continues to grow. Demand for beans is expected to keep growing at around 2 to 3% per year in the UK, and probably slightly less rapidly on the Continent. Exporters should note that the key comparative advantages are low labour costs and low airfreight rates, which can both be replicated in many production areas. The market will therefore remain competitive.

Given the cost of airfreight from Rwanda, any opportunity in the french bean market will be at the premium end of the grades, particularly in the fines and extra fines. It is unlikely that the returns on bobby beans would be sufficient to cover the freight costs.

Among the major European importers of french beans, France, the UK and Belgium seem to offer opportunities for new exporters. In Germany and the Netherlands the demand is chiefly for bobby beans, offering a lower return than the fine and extra-fine types. Fine beans are still considered to be an exotic vegetable in these countries and are not generally purchased for home consumption: the trade is focussed on the restaurants. All three types of french bean are already well supplied by other origins. Recent investment in production and marketing of various beans in Egypt has made an impact, especially in the Netherlands. Italy is a rapidly expanding market, but again the demand is chiefly for bobby beans.

France is well supplied by produce from francophone West Africa and Kenya, which can be flown direct to Paris or to other north European airports in easy reach of the Paris market. Fine beans are of limited interest to France and most of the demand, reportedly 70%, is for the extra fine grade.

Belgium is strongly dependent on a single supplier, Kenya, for fine and extra fine beans. Belgium is a good hub for distribution, and from here, importers could place the beans in the best market, within the limitations of onward freight costs.

In the UK there are opportunities for new sources of fine and extra fine beans where an alternative to Kenyan produce might be welcome. Extra-fine beans, almost exclusively used by the catering trade, offer too small a volume and a supplier should be able to send both fine and extra fine. Demand peaks in the pre-Christmas period, but there is also often a seasonal shortage in the spring to May. The period from mid November to May offers the best prospects in both the UK and Belgium.

Suppliers seeking to enter the UK market should aim for the wholesale markets where bulk packed produce is still accepted. While there is good demand in the winter months for high quality product, goods of inferior quality will not obtain a sufficient return to cover transport costs. In the longer term, it would be necessary to develop a link with the importer-distributors that supply the supermarkets.

Throughout Europe it is clear that while there is no shortage of supply of beans, there is a shortage of top quality product. The importance of quality and consistent marketing in terms of presentation, packing, quantity and regularity of supply, cannot be overemphasised. If Rwanda is to enter the market, it must be able to compete with

Kenya: supply is year-round, grading and presentation are very consistent and of the highest quality, and transit arrangements are good.

III MARKET REQUIREMENTS

The European Commission has agreed a set of common standards for beans (Regulation 58/62 Annex I/4). The standards establish a specification for beans, including varieties and species other than green beans. Annex 1 here gives the standards in full.

Beans must comply with these standards if they are to be traded within the EU. The standards must be seen, however, as a minimum requirement: the opportunity for Rwandan beans in Europe will be as an alternative to Kenya and to enter the market the quality must be equal or better than the level maintained by Kenyan exporters.

Agree the precise specifications with the importer, but in outline the likely requirements are as follows:

Varieties:	A large number of varieties are now available and it is important to ensure that the chosen variety will meet the specification and growing conditions.		
Appearance:	Clean, firm, fresh, healthy, bright. Light green to dark green depending on variety. Small, 15mm max, stalk left on (unless to be sold ready trimmed).		
Size:		Diameter	Length
	Extra Fine	6-7.5mm	8-12cm
	Fine	6.5-9mm	10-13cm
	Bobby	8-12mm	12-16cm
Shape & Aspect:	Straight, with only limited curvature. Cylindrical. Uniform length and diameter		
Condition:	Firm, turgid i.e. snap when bent. Seeds immature, barely apparent from the outside in bobby beans, not developed in fine and extra-fine Free from disease, breakdown, bruising, damage Clean and free from pests No spray deposits or residues Free from foreign taste and smells		
Taste & Texture:	Stringless. Not tough.		

Storage:	6-8 °C
Presentation:	Loose packed in 2kg or 5kg boxes –uniform size and grade or pre-packed as specified, for example in 250g bags.

IV EXPORT PROCESS

Harvesting

French beans need to be harvested by hand, preferably every day. They are picked to the length specified by the customer, before the seed visibly develops, and a measuring stick may be useful for accuracy. Beans should be harvested into crates protected from the sun, and taken to field shade or cooling as soon as possible.

As part of the harvesting operation damaged, misshapen or diseased pods should be removed from the plant at harvest.

Export Grading & Packing

The quality and freshness of the beans depends on removing the field heat as quickly as possible and maintaining a cold chain through to the market.

Pods are graded to size, freshness (pods should snap when bent) and appearance (free from disease or other contamination, straight, no seeds visible). Dead flowers should be removed from pod ends and stalks reduced to a minimum length.

Beans are laid together in the same direction. While bobby beans are usually jumble packed, fine and extra-fine may well be required pre-packed in punnets or pillow packs, or possibly ready trimmed as top and tailed, or topped, where the calyx end is removed.

Packaging Requirements

For the UK market beans are generally pre-packed for supermarket outlets, for example, in 250g packs. Pack sizes vary and the beans may be trimmed ready for cooking or uncut. Sometime the packing is done at specialist packers in the UK but increasingly origin packing is required.

Conversely, for the French and Belgian markets beans are supplied loose packed in cartons. Retail shoppers prefer to select their own produce rather than being presented with ready packed beans. Although loose the beans should be laid neatly, with tips in the same direction within a box.

The cartons containing loose beans or punnets must be of good quality material and allow adequate ventilation, to avoid a build up of respiratory heat.

Fine and extra-fine beans are usually packed in 2.5 - 3.0kg cartons, while bobbys are packed in 5 - 6kg cartons.

All cartons should be legibly and indelibly marked with:-

- The packer/dispatcher by name and address or mark.
- Nature of the produce.
- Origin of the produce.
- Specifications of class, size, quantity.

Other useful information might include:-

- This side up symbol.
- Fragile symbol.

- Temperature symbol with an indication of the temperature range.
- Net weight.
- Date of packing.
- Tare.
- Name and address of grower.

Storage & Transportation

Beans held at 6-8°C will last up to seven days. Chilling damage occurs at 4°C and below. Humidity levels of 92-95% RH are optimal, but free moisture should be avoided as it encourages disease.

Beans are sensitive to ethylene and should not be stored with any ethylene producing crops, (passion fruit, citrus, bananas). Beans have a low rate of ethylene production.

The European retailer needs a minimum 3 days shelf life for the beans, so evacuation from the packhouse and export must be completed rapidly and frequently. At least two flights per week to Europe are required to give the product a good shelf life on arrival.

V ACCESS TO MARKET

Import Documentation

Consignments of beans should be accompanied by:

- Commercial invoice
- Form EUR1 as proof of origin (to allow duty free entry as ACP)

The information to be included on the commercial invoice and the need for any other documentation should be agreed with the importer in advance. Note that any hold – up to the process of releasing the beans on import will reduce the shelf life.

Relevant Legislation

Import Duty

Fresh french beans enter the EU under the tariff code 070820.00-20

The full duty payable on import is levied at 10.4% of the value of the consignment, increasing to 13.6% during the European production season from 1st July to 30th September. Produce from ACP countries as well as LDDCs enters free of duty. LDDCs are Least Developed Developing Countries and included in this category are other bean suppliers such as Uganda, Tanzania, Ethiopia and Zambia. This distinction will become increasingly important as under the current World Trade Organisation agreements the tariff preferences given to ACP origins are due to be phased out over the next few years. If this goes ahead (and it is currently under negotiation) LDDCs will then have a substantial advantage in costs.

Quality standards

The European Commission has agreed a set of common standards for beans (Regulation 58/62 Annex I/4). The standards establish a specification for beans, including varieties and species other than green beans. Annex 1 here gives the standards in full.

Pesticides

One of the key drivers in the European food market has been an increasing concern amongst consumers for health and healthy products. Fresh produce benefits from this interest in health, but there is increasing anxiety about the use of pesticides both in environmental impact and in food safety, as seen in the growth of the organic sector. The European commission addresses the issues of food safety with lists of banned chemicals and also through regulations on maximum residue levels (MRLs).

It is critical that the producer and exporter fully understand the regulations. These should be discussed with the importer and followed. Accurate record keeping of all pesticide applications is essential and producers should follow an accepted Code of Practice.

The regulations on MRLs are changing as the EC attempts to harmonise the levels set in different member states. The consequences of these changes for exporters of tropical fruits are serious: unless MRLs have been established for a crop/pesticide combination, the MRL is set at zero. This effectively prevents the use of that

pesticide in case any traces are detected on arrival in Europe. The liaison group for EU and ACP horticulture is addressing the question and details can be found on www.coleacp.org.

Environmental and Social Issues

There are a number of schemes that aim to reduce the impact of agriculture and horticulture on the environment. As noted in Section III here, the EUREP GAP (for Good Agricultural Practice) protocol, instigated by a collection of European retailers, is set to become important and suppliers should seek advice on how to comply. Details of the members, their meetings and the protocol can be found on www.eurep.org.

Phytosanitary Issues

Council Directive 2000/29/EC regulates the import of fresh fruit and vegetables from outside the European Union in order to control the spread of damaging pests and diseases. Under this legislation, a phytosanitary certificate is required for consignments of a number of species but not French beans.

See http://www.europa.eu.int/eur-lex/en/lif/dat/2000/en_300L0029.html for up to date information.

The euro

The euro was introduced in January 1999 as a single currency for the member states of the European Union. In January 2002 euro bank notes and coins will be introduced and the currencies of the member states in the euro zone will be gradually withdrawn. At present there are 12 members of the euro zone, and only the UK, Denmark and Sweden have not joined.

For the trade in Europe the change is significant: transaction costs will be cheaper, foreign exchange costs will be fixed and most importantly there will be complete price transparency between markets.

The implications for exporters to the EU are far reaching and it is important to be prepared. While the US dollar may still be the chosen currency for international transactions, it is likely that exporters will soon be required to quote in euros as the trade avoids currency risk

Exporters should:

- Be familiar with the euro and its value
- Be able to quote in euros
- Be able to invoice customers in the chosen currency
- Ensure that software for logistics and accounting is capable of handling euros
- Be capable of labelling in euros

Selected Import Companies

Belgium (+32)

Ets Goossens & Fils SA
44-45 Quai des Usines 112 –154
1000 Brussels

Tel: (0)2 216 9255
Fax: (0)2 216 2946

Special Fruit NV
Wenenstraat 6
2321 Meer

Tel: (0)3 317 0660
Fax: (0)3 315 0843
special.fruit@g-net.be

France (+33)

S A Drevin Exotics
81 rue d'Angers
94584 Rungis Cedex

Tel: (0)1 45 60 70 80
Fax: (0)1 46 86 35 58

Germany (+49)

TROFI Tropenfrucht-Import GmbH
Lippelstrasse 1
D-20097 Hamburg

Tel: (0)40 30 70 960
Fax: (0)40
trofihh@aol.com

Internationale Fruchtimport Gesellschaft Weichert & Co
Bankstrasse 28
D-20022 Hamburg

Tel: (0)40 329 000
Fax: (0)40 329 001 99
info@interweichert.de

Netherlands (+31)

Bud Holland
PO Box 411
NL-3140
AK Maassluis

Tel: (0)174 53 53 53
Fax: (0)174 51 39 12
exotics@bud.nl

BV Exotimex
PO Box 649
2600 AP Delft

Tel: (0)15 2511 211
Fax: (0)15 2511 222
www.exotimex.nl

UK (+44)

Exotic Farm Produce

Studio 6

Bentinck Road

West Drayton

Middlesex UB7 7RQ

Tel: (0)1895 438 000

Fax: (0)1895 458 009

www.exoticfarm.com

Minor Weir & Willis

Pershore Road

Birmingham

B20 2QQ

Tel: (0)121 344 4554

Fax: (0)121 331 4590

www.mww.co.uk

Redbridge Produce Marketing

Tolworth Tower

Surbiton

Surrey KT6 7EL

Tel: (0)20 8390 1133

Fax: (0)20 8399 3499

www.redbridge.uk.com

Saturnalia UK Ltd

1 Pier Road

Feltham

Middlesex TW14 0TW

Tel: (0)20 8935 4000

Fax: (0)20 8935 4001

enquiries@saturnaliauk.com

ANNEX 1

Common Standards of Quality for Beans

REGULATION 58/62 ANNEX I/4 AMENDED BY REGULATION 888/97

I. DEFINITION OF PRODUCE

This standard applies to beans grown from *Phaseolus vulgaris* L. and *Phaseolus coccineus* L. to be supplied fresh to the consumer, beans for shelling or processing being excluded.

II. QUALITY REQUIREMENTS

A. General

The purpose of the standard is to define the quality requirements for beans at the dispatching stage after preparation and packaging.

B. Minimum requirements

(i) The beans must be:

- intact,
- sound (subject to the special provisions for each class),
- of fresh appearance,
- clean, in particular free from any impurity or any visible trace of the chemicals used,
- free from foreign smell or taste,
- free from all abnormal external moisture.

(ii) The beans must be of sufficient size.

The state of the produce must be such as to enable it to withstand transport and handling, to be kept in good condition until it reaches its place of destination and to meet market requirements there.

C. Classification

(a) Fine beans ('needle beans').

Fine beans are graded in three quality classes which are defined below:

(i) 'Extra' Class

Beans in this class must be of superlative quality and of the shape, size and colour characteristic of the variety. They must be:

- turgescant,

- very tender,
- seedless and stringless,
- free from any defect.

(ii) Class I

Beans in this class must be of good quality. They must be turgescient and tender, and must have the characteristic shape, size and colour of the variety concerned.

Slight discoloration, small seeds and short soft strings are permissible.

(iii) Class II

This class comprises fine beans of marketable quality which do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above.

Such beans must be reasonably tender, the seeds must not be too large. They may have minor superficial blemishes.

(b) Beans, other.

Beans, other, are graded in two quality classes which are defined below:

(i) Class I

Produce in this class must be of good quality and must have the shape, size and colouring characteristic of the variety.

Such beans must be:

- in such a condition that they can be easily broken by hand (this applies only to beans of the 'mange-tout' variety)
- young and tender
- stringless, except in the case of beans for slicing
- practically free from spots caused by the wind and free from any other blemish.

The seeds must be small and tender for the variety concerned; pods must be closed.

(ii) Class II

This class comprises beans of marketable quality which do not qualify for inclusion in the higher class but satisfy the minimum requirements specified above. Beans in this class must be:

- reasonably young and tender.

The seeds may be somewhat larger than in Class I but must nevertheless be tender for the variety concerned.

Traces of disease or frost-nip are prohibited. However, minor superficial blemishes and slight spots caused by the wind are allowed. Beans with strings are permitted.

III. SIZING

Sizing is required only in the case of fine beans. Sizing is determined by the maximum diameter of the pod in accordance with the following classification:

- very fine: width of the pod not exceeding 6 mm
- fine: width of the pod not exceeding 9 mm
- average: width of the pod exceeding 9 mm.

'Fine' and 'average' beans may not be placed in the 'Extra' Class.

'Average' beans may not be placed in Class I.

IV. TOLERANCES

Tolerances in respect of quality and size are allowed in each package for substandard produce.

A. Quality Tolerances

(i) 'Extra' Class

5% by weight of beans not satisfying the requirements of the class but meeting the requirements of the Class immediately below (Class I).

(ii) Class I

10% by weight of beans not satisfying the requirements of the class but meeting the requirements of the class immediately below (Class II); of these, a maximum of 5% may have strings in the case of varieties which should be stringless.

(iii) Class II

10% by weight of beans not satisfying the minimum requirements but fit for human consumption.

In no circumstances shall tolerances include produce affected by *Colletotrichum* (*Gloeosporium*) *Lindemuthianum* blight.

B. Size Tolerances (fine beans)

For all classes: 10% by weight of the produce in each package not conforming to the standard size.

C. Cumulative tolerances (fine beans)

In no circumstances may quality and size tolerances together exceed:

- 10% in the 'Extras' Class
- 15% in Classes I and II.

V. PACKAGING AND PRESENTATION

A. Uniformity

The contents of each package must be uniform and contain only beans of the same origin, variety and quality.

B. Packaging

Packaging must be of such a kind as to ensure that the produce is properly protected. Any paper or other material used inside the package must be new and harmless to human food. When printed matter is used, the printing must be on the outside only so as not to come into contact with the produce. The produce when packaged must be free from any foreign bodies.

VI. MARKING

Each package must bear the following particulars, legibly and indelibly marked on the outside:

A. Identification

Packer and/or dispatcher: Name and address or officially issued or accepted code mark. However, in the case where a code mark is used, the reference, “Packer and/or dispatcher (or equivalent abbreviations)” has to be indicated in close connection with the code mark.

B. Nature of Produce

Indication of type ('French beans', 'runner beans', 'fine beans',) or variety (where the contents of the package are not visible from the outside)

C. Origin of Produce

Country of origin and optionally district where grown, or national, regional or local trade name.

D. Commercial Specifications

- Class
- Sizing (optional) indicated by 'very fine', 'fine', 'average' for fine beans

E. Official control mark (optional).

ANNEX 2

Useful Websites

<http://www.hort.purdue.edu/rhodcv/hort410/peas/pe00003.htm>

Notes and links on Phaseolus production.

<http://postharvest.ucdavis.edu/Produce/ProduceFacts/Veg/snapbeans.html>

Post harvest recommendations

<http://www.cals.ncsu.edu/sustainable/peet/profiles/c08bbean.html>

Production and post harvest of various beans

<http://www.bae.ncsu.edu/programs/extension/publicat/postharv/ag-413-8/index.html>

Detailed post harvest considerations (particular for the US market but applicable elsewhere)

<http://www.hort.purdue.edu/rhodcv/hort410/peas/peas.htm>

Excellent collection of links

<http://www.intracen.org>

Weekly market prices

<http://www.todaymarket.com>

Daily market prices

<http://www.coelacp.org>

EU-ACP liaison on horticultural issues

<http://www.ifoam.de>

Umbrella organisation for the organic agriculture movement

<http://www.organic-europe.net>

Information on organic agriculture by country with good links